DS3 SERIES
Current Sensing Switches

DS3 Series Current Sensing Switches combine a Hall effect sensor, signal conditioner and a limit alarm into a single package. The DS3 Series offers three jumper-selected current input ranges and frequency response from DC to 400 Hz. Available in a solid-core case with choice of relay or a universal solid-state output.



Current Sensing Switch Applications

Welders and Platers
- Instant indication of equipment status.

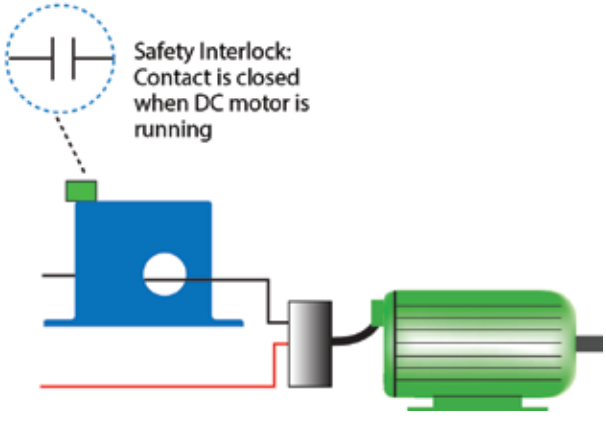
Large Drive Motors
- Provides enhanced field loss protection.

Power Supplies
- Signals overcurrent before equipment fails.

Machine Operation
- Instant status of motors, lamps and other loads.

Telecom Sites
- Monitors battery output.

Failure Detection



For additional Application Examples, go to www.nktechnologies.com/applications

Current Sensing Switch Features

Compact, One-piece Design
- Fits in easily amongst motor starters and power supplies in crowded control panels.

Input Isolation
- Safer than shunt/relay combinations.

Output Installation
- Isolated output greatly simplifies wiring.

Pluggable Terminals
- Speed installation.

Tough
- Designed to handle a wide range of temperatures found in industrial environments.

Adaptive Hysteresis
- Hysteresis is 5% of setpoint, allowing closer control than fixed hysteresis switches.

Built-in Mounting Feet
- Simple, two-screw installation allows for secure mounting.

UL/cUL and CE Approved
- Accepted worldwide.

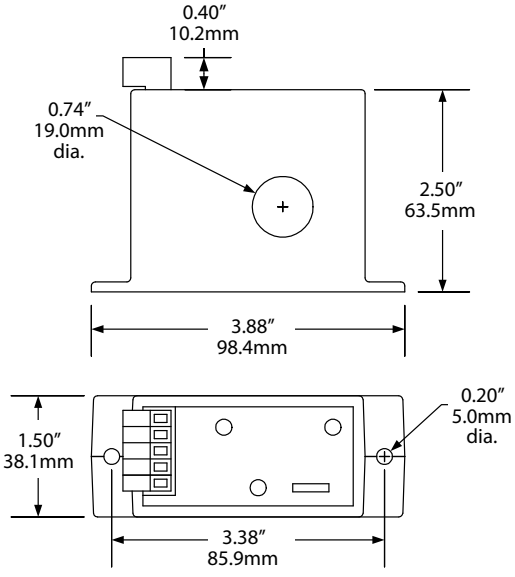
OEMs **Test & Evaluation Units for OEMs**
Free program expedites evaluation process. See page 3 for details.

NK Technologies
3511 Charter Park Drive • San Jose, CA 95136
800.959.4014 • www.nktechnologies.com • sales@nktechnologies.com

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Current Sensing Switch Dimensions

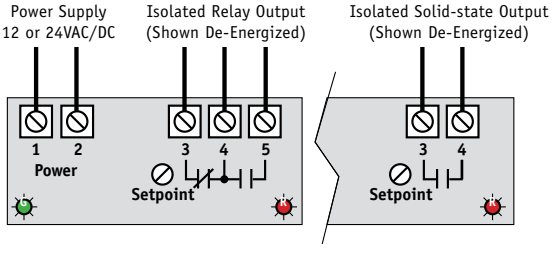
Case



Current Sensing Switch Specifications

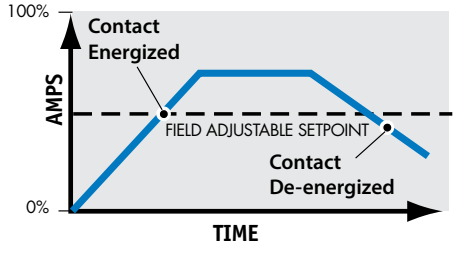
Power Supply	10–28 VDC
Power Consumption	<2 VA
Setpoint Range	2–20, 10–50 and 20–100 A DC adjustable (2–14, 10–35, 20–70 A AC)
Output Description	Isolated solid-state or relay contacts
Output Rating	• Solid-state: 0.15 A @ 240 VAC or VDC (N.O. only) • Relays: 5.0 A @ 240 VAC, 5.0 A @ 30 VDC (SPDT)
Off-state Leakage	<10 µA (solid-state), none (relay)
Response Time	80 ms max.
Time Delay	None
Hysteresis	5%
Isolation Voltage	UL listed to 1270 VAC, tested to 3 KV
Frequency Range	DC to 400 Hz
Case	UL94 V-0 Flammability Rated
Environmental	-4 to 122°F (-20 to 50°C) 0–95% RH, non-condensing
Listings	UL/cUL, CE

Current Sensing Switch Connections



Notes:
Pressure plate screw terminals.
12–22 AWG solid or stranded.
Field-adjustable setpoint.

DS3 Series Sample Output/Power Supply



Current Sensing Switch Ordering Information

Sample Model Number: DS3-SDT-24U

DS current sensing switch with SPDT relay contacts and 24 VAC/DC power supply. (DIN rail adapters are included)

	(1)		(2)			–	(3)		
DS	3					–			

(1) Setpoint Range

3	2–20, 10–50 and 20–100 A, jumper-selectable

(2) Output Type

SDT	SPDT Relay (Form C)
NOU	Solid-state N.O. AC/DC

(3) Power Supply

24U	+24 VAC/DC
12U	+12 VAC/DC

Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000